

Application No. 09/483,521  
Response to Final Office Action

Customer No. 01933

**Listing of Claims:**

Claims 1-10 (Canceled).

11. (Currently Amended) ~~The~~ An image sensing apparatus for a microscope according to claim 10, comprising:

an image sensing unit for sensing an observation image obtained by a microscope and obtaining the observation image;

5 a microscopy technique determination unit for detecting a microscopy technique in the microscope;

a luminance distribution determination unit for calculating a luminance distribution of the observation image based on the microscopy technique detected by said microscopy technique determination unit, and determining from the luminance distribution a region where tone is to be corrected in the observation image; and

10 a tone adjustment unit for correcting tone in accordance with a tone correction amount arbitrarily set for the region of the observation image determined by said luminance distribution determination unit;

15 wherein when a fluorescent observation state is detected by the microscopy determination unit: [[,]]

the luminance distribution determination unit

20 identifies a low-luminance range representing a background and an

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intermediate-luminance range representing a fluorescent specimen part, from the luminance distribution of the observation image, and determines a boundary between the low-luminance range and the intermediate-luminance range, and

25                   the tone adjustment unit performs an arbitrarily set tone correction on the fluorescent specimen part.

12. (Currently Amended) ~~The~~ An image sensing apparatus for a microscope according to claim 10, comprising:

an image sensing unit for sensing an observation image obtained by a microscope and obtaining the observation image;

5                   a microscopy technique determination unit for detecting a microscopy technique in the microscope;

a luminance distribution determination unit for calculating a luminance distribution of the observation image based on the microscopy technique detected by said microscopy technique determination unit, and determining from the luminance distribution a region where tone is to be corrected in the observation image; and

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a tone adjustment unit for correcting tone in accordance with a tone correction amount arbitrarily set for the region of the observation image determined by said luminance distribution determination unit;

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wherein when a transmission bright-field observation state  
is detected by the microscopy technique determination unit; [[,]]

the luminance distribution determination unit

20 identifies a high-luminance range representing a background and  
at least one of a low-luminance range and an intermediate-  
luminance range representing a bright-field specimen part from  
the luminance distribution of the observation image, and  
determines a boundary between the high-luminance range and the at  
25 least one of the low-luminance range and the intermediate-  
luminance range, and

the tone adjustment unit performs an arbitrarily set  
tone correction on the bright-field specimen part.

13. (Previously Presented) The apparatus according to  
claim 11, wherein the tone adjustment unit performs a tone-  
expanding correction on the fluorescent specimen part.

14. (Previously Presented) The apparatus according to  
claim 12, wherein the tone adjustment unit performs a tone-  
expanding correction on the bright-field specimen part.

Claims 15 and 16 (Canceled).